Problem of the Week
Problem B
Reflecting on Your Design

In parts a) and b), we are going to be performing a number of reflections. When you are finished all the reflections, you should have an overall pattern that is pleasing to the eye.

a) The solid lines on the right show the start of a pattern. The dotted lines represent mirrors that will reflect an image. First, reflect the solid lines across mirror A to create new solid lines between mirrors A and B. Then reflect the new solid lines across mirror B to create new solid lines between mirrors B and C. Continue in this way to finish the design, and reflect the new lines of the pattern across mirrors C, D, E, F, and then G.

b) The start of a second pattern is shown on the right. The dotted lines represent mirrors that will reflect an image. First, reflect the pattern across mirror A to create a new pattern between mirrors A and B. Then reflect the new pattern across mirror B to create a new pattern between mirrors B and C. Continue in this way to finish the design, and reflect the new pattern across mirrors C, D, and then E.

c) Describe to a classmate the process you used to complete your design accurately.